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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/047,252	03/24/1998	PASCAL MELLOTT	S1022/8047	3048
7590	12/27/2005		EXAMINER	
JAMES H MORRIS WOLF GREENFIELD & SACKS 600 ATLANTIC AVENUE BOSTON, MA 02210			PENDLETON, BRIAN T	
			ART UNIT	PAPER NUMBER
				2644

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/047,252	MELLOTT, PASCAL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brian T. Pendleton	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 13 October 2005.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3-17 and 19-21 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,3-17 and 19-21 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 24 March 1999 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                         |                                                                             |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date: _____                                                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|                                                                                                                         | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments, see pages 6-12 of the Remarks, filed 10/13/05, with respect to the rejection(s) of claim(s) 1, 3-17, and 19-21 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Klippel, US Patent 5,528,695.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3-6, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Applicant's Admitted Prior Art (APA) and further in view of Klippel. Smith discloses a circuit for processing broadcast signals and attenuating commercial interruptions comprising an attenuator 80 for attenuating a first audio signal based upon a first control signal from digital logic 60 and generating a second audio signal (at outputs 200 and 202). The first control signal is associated with signal comparator circuit 50a having rectifiers 52, low pass filters 54, and comparators 56. The rectifiers 52 and low pass filters 54 determine a root mean square value. The comparators 56 are used to generate the first control signal. Smith does not disclose first circuitry for receiving a broadcast signal and extracting a first audio signal, second circuitry for receiving the second audio signal and one or attenuating and amplifying the second audio signal based upon a second control signal to generate a third audio signal. However, as disclosed by the Applicant in the Background Art section and figure 1, those elements are standard components in a broadcast system having commercial interruptions. Furthermore, the

circuitry of Smith is feedforward which attenuates commercials based on the first audio signal. Smith does not disclose that the circuitry is feedback, whereby the commercials are attenuated based on the second audio signal. Klippel discloses an audio limiting apparatus in figures 1 and 2. The invention is directed toward limiting (attenuating an audio signal to a speaker 2 when the signal exceeds a predefined level). Figure 1 is a feedforward configuration while figure 2 is a feedback configuration. Column 3 lines 44-48 disclose that the feedback configuration has advantages in comparison to the feedforward configuration. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Smith to have the first control signal based on feedback circuitry, specifically, connecting the output of attenuator 80 to the circuitry (signal comparator circuit 50a). Claims 1, 3, and 17 are met. The combination of Smith, the APA, and Klippel does not disclose that the circuitry is implemented in digital circuitry with one or more digital signal processing algorithms. However, Examiner takes Official Notice that the use and benefits of digital hardware and software algorithms were well known and it would have been obvious to one of ordinary skill in the art at the time of invention to use such elements in the combination for the purpose of improving the accuracy and speed of the automatic gain control. Claims 4-6 are met.

Claims 7-9, 11-16, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of the APA and further in view of Klippel, as applied to claims 1, 3, and 17 above, and further in view of Fuller. The combination of Smith, the APA, and Klippel does not disclose an integrating comparator, as required by claim 7. Fuller discloses a sound leveling system comprising input signals L, R, gain control 206, signal AC-to-DC converter 208, and threshold integrator 210 for sending a control signal to gain control 206. The threshold

integrator uses an integrating comparator, specifically a current sourcing/sinking comparator. It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teachings of Fuller and include an integrating comparator in the combination for the purpose of establishing a time period for the comparison step in gain control which can be set appropriately for different audio systems. Claims 7 and 9 are met. As to claim 8, Smith discloses a rectifier and low pass filter. Regarding claims 11-16 and 19-21, it was also obvious to use such an attenuating system to any system have audio signals with varying volume such as television, radio, and satellite systems.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of the APA and further in view of Klippel and further in view of Fuller, as applied to claim 7 above, and further in view of Dasilva. The combination of Smith, the APA, Klippel, and Fuller does not disclose a multiplying D/A converter in the attenuator circuit. Dasilva discloses a switched resistive control circuit (multiplying D/A converter). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the circuit of Dasilva in the modified invention of Smith, the APA, Klippel, and Fuller. As stated in the abstract, the use of the signal attenuator of Dasilva provides selectable levels of signal attenuation, which would allow more flexibility, a desirable feature.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Orban, US Patent 5,444,788, discloses the use, benefits and advantages of feedforward and feedback configurations for compressors.

Art Unit: 2644

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (571) 272-7527. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian T. Pendleton  
Primary Examiner  
Art Unit 2644

btp

